

**COLOR VECTOR HALFTONING USING A SUCCESSIVE FILLING
WITH IMPROVED COLOR REGISTRATION LATITUDE**

ABSTRACT

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A method is provided for rendering a color image with a plurality of separations with a halftone process using a single screen. The screen is comprised of a plurality of pixel locations with associated threshold values and the image is comprised of a plurality of separation values. The method includes the steps of rendering a first one of the plurality of separations in accordance with the screen, wherein the plurality of pixel locations are turned on or off at a given pixel location based on a comparison of the image separation value at that pixel with the screen threshold value. The rendering of the next color separation is made in accordance with the rendering of the first separation and the screen, wherein for constant image separation values, pixel locations are turned on for the separation at pixel locations disposed in a highest available luminance region having a lowest available threshold value. When successive filling approaches the end portion of available threshold values, overlap filling with earlier rendered color separations occurs before the screen is completely filled.

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